

DETAILED ACTION

1. Subsequent to the interview held on 1/28/2008, and after further consideration given by the Examiner to the prior art of record and to the Applicant's representative remarks regarding claims 1 and 12, the Examiner believes that Claims 1,12,27,28 are allowable and reason for allowance is below.

Allowable Subject Matter

2. Claims 1-24,27-46 are (renumbered 1-44 respectively) allowed.
3. The following is an examiner's statement of reasons for allowance:

Independent Claim 1, is allowable over the prior art of record since in light of the the cited references taken alone or in combination do not teach or suggest: a magnetic recording/reproducing apparatus as claimed in the context of a recording/reproducing medium storing data using perpendicular magnetic recording/reproducing, wherein a reproduced signal outputted from said reproducing head is processed through *a partial response equalization circuit having a frequency characteristic so that a low-frequency component of said reproduced signal including a direct current component is partially suppressed but not completely cut off through said partial response equalization circuit* , in combination with the other limitations in the claim.

Independent Claim 12, is allowable over the prior art of record since the cited references taken alone or in combination do not teach or suggest: a magnetically recorded/reproduced signal processing circuit as claimed in the context of a recording/reproducing medium storing data using perpendicular magnetic recording/reproducing, wherein a reproduced signal outputted from said reproducing head is processed through *a partial response equalization circuit having a frequency characteristic so that a low-frequency component of said reproduced signal including a direct current component is partially suppressed*

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but not completely cut off through said partial response equalization circuit, in combination with the other limitations in the claim.

Independent Claim 27, is allowable over the prior art of record since the cited references taken alone or in combination do not teach or suggest: a perpendicular magnetic recording/reproducing apparatus comprising: *wherein said reproduced waveform corresponding to a pair of the closest two recording transitions recorded on said recording medium at a shortest bit length interval are outputted as a waveform having intersymbol interference with amplitude ratios $P_1, P_2 - aP_1, \dots, P_k - aP_{k-1}, \dots, P_N - aP_{N-1}$, and $-aP_N$, wherein a is a value of a real number in a range of $0 < a < 1$, k is an integer indicating a bit interval, $P_1, P_2, \dots, P_k, \dots$ and P_N are real numbers with the same sign, and P_1 and P_N are non-zero real numbers and $N > 2$ at each bit interval through said partial response equalization circuit.*, in combination with the other limitations in the claim.

Independent Claim 28, is allowable over the prior art of record since the cited references taken alone or in combination do not teach or suggest: a perpendicular magnetic recorded/reproduced processing circuit comprising: *wherein said reproduced waveform corresponding to a pair of the closest two recording transitions recorded on said recording medium at a shortest bit length interval are outputted as a waveform having intersymbol interference with amplitude ratios $P_1, P_2 - aP_1, \dots, P_k - aP_{k-1}, \dots, P_N - aP_{N-1}$, and $-aP_N$, wherein a is a value of a real number in a range of $0 < a < 1$, k is an integer indicating a bit interval, $P_1, P_2, \dots, P_k, \dots$ and P_N are real numbers with the same sign, and P_1 and P_N are non-zero real numbers and $N > 2$ at each bit interval through said partial response equalization circuit.*, in combination with the other limitations in the claim.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

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Conclusion

1. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Ziporovich (US 5,459,679); Mallary (US 6,359,744); Dudley et al. (US 5,583,706); Sawaguchi et al. (US 6,741,412); Tonami (US 6,445,662); Nishida et al. (US 6,304,402); Mita et al. (US 6,337,889); Sawaguchi et al. (US 6,912,100); Osafune (US 6,762,895).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DISMERY E. MERCEDES whose telephone number is (571)272-7558. The examiner can normally be reached on Monday - Friday, from 9:00am - 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa Thi Nguyen can be reached on 571-272-7579. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/D. E. M./

Examiner, Art Unit 2627

/HOA T NGUYEN/

Supervisory Patent Examiner, Art Unit 2627